Reviewer’s report

Title: Bone resorption and environmental exposure to cadmium in children

Version: 2 Date: 27 October 2011

Reviewer: Yasushi Suwazono

Reviewer’s report:

Major Compulsory Revisions

1. Results (Table 2): The participants should be completely divided into two gender groups and regression analyses should be done in each group.

2. Results (urinary Ca): The authors indicated the precipitation of urinary Cd. If so, the urinary Ca in the results should be adjusted for the effect of precipitation based on their own measuring condition. Simultaneously, the authors replied that their low urinary Ca concentrations are in line with recent findings from Berglund, et al (Environ Res. 2011, online) in children. However in the study by Berglund, the urinary Ca was adjusted to specific gravity of 1.012. Therefore, the present results are not comparable immediately with those results due to the difference in adjustment method, unit and precipitation of Ca.

3. Results (urinary Ca): The authors converted the unit from ‘mg/g creatinine’ to ‘µmol/ mmol crt’. By this conversion, previous 95th percentile of urinary Ca (18.8 mg/g creatinine) in boys corresponds to 53.1 µmol/mmol crt. However, the present 95th percentile of urinary Ca was 401 µmol/mmol crt. Therefore, some conversion error or may exist for urinary Ca in the present results.

4. Results (Urinary DPD): The authors replied that they have checked the ‘units’ of DPD and changed where necessary. However, revisions of measurement values were not referred in their reply. The authors converted the unit of DPD from ‘ng/g creatinine’ to ‘nmol/ mmol crt’. By this conversion, previous 95th percentile of urinary DPD (6071 ng/g creatinine) in boys corresponds to 1.66 nmol/mmol crt. However, the present 95th percentile of urinary DPD was 695 nmol/mmol crt. Therefore, some conversion error may exist for the urinary DPD in the present results.

5. Results: According to above concerns, the whole results require re-calculations after thorough careful recheck of measurement values and conversions.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.
Declaration of competing interests:

I have no conflict of interest regarding this manuscript.